



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,078	11/19/2003	Joseph C. Dille	10781.0040.NPUS00	1077
26720	7590	10/04/2004	EXAMINER	
HOWREY SIMON ARNOLD & WHITE LLP			MACK, COREY D	
ATTEN. DOCKETING DEPT. (A)			ART UNIT	
750 BERING DRIVE			PAPER NUMBER	
HOUSTON, TX 77057			2855	

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,078

Applicant(s)

DILLE, JOSEPH C.

Examiner

Corey D. Mack

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8, 14-18 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Cook, et al. (US 6,519,828).

A. With respect to Claims 1, 14 and 21, Cook discloses a flow sensor tube assembly, comprising: a base member 1 having first and second generally opposing sides; an opening extending through the base member (See Fig. 1-8); a flow sensor tube 2 having an end received in the opening; a filler material 5 situated in the opening surrounding the flow sensor tube adjacent the first side of the base member; and the flow sensor tube being welded 3 to the base member adjacent the second side of the base member.

B. With respect to Claim 2, Cook discloses that the opening has first and second segments 1, 7 defining first and second diameters, respectively, the first diameter being greater than the second diameter (See Fig. 4-7).

C. With respect to Claims 3 and 15, Cook discloses that the filler material 5 is situated in the first segment of the opening surrounding the flow sensor tube (column 6, lines 4-11; See Fig. 3-7).

D. With respect to Claim 4, Cook discloses a nipple 6 defined by the base member (See Fig. 4-6).

Art Unit: 2855

- E. With respect to Claims 5 and 16, Cook discloses that the opening is situated at least partially in the nipple 6 (See Fig. 4-6).
- F. With respect to Claims 6 and 17, Cook discloses that second side of the base member adjacent the opening is formed around the flow sensor tube so as to eliminate a gap between the opening and the flow sensor tube (column 5, line 50 – column 6, line 11; See Fig. 1-8).
- G. With respect to Claim 7, Cook discloses that nipple 6 is formed around the flow sensor tube 2 so as to eliminate a gap between the opening and the flow sensor tube (See Fig. 4-6).
- H. With respect to Claims 8 and 18, Cook discloses that a portion of the flow sensor tube 2 extends from the second side of the base member (See Fig. 1-8).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook, et al. (US 6,519,828) in view Cage (US 4,895,031).

A. With respect to Claims 9 and 20, Cook discloses the claimed invention, except they do not disclose a second opening extending through the base member; and the second end of the flow sensor tube being received in the second opening. Cage discloses a flow sensor comprising first and second opening in base member 12 wherein flow tube 14, 14' is cantilever mounted in the first and second openings such that oscillation forces in the flow tubes can be measured (column 5, line 28 – column 6, line 35; See Fig. 1, 4 and 5). Therefore, at the time the invention

Art Unit: 2855

was made, it would have been obvious to one of ordinary skill in the art to include in Cook a second end of the flow sensor tube received in a second opening of the base member in order to measure Coriolis forces through the flow tube.

B. Claims 10-13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook, et al. (US 6,519,828) in view of Dutton, Jr. et al. (US 5,344,717).

C. With respect to Claim 10, 11, 12 and 13, Cook discloses the claimed invention, except they do not explicitly disclose a groove forming a raised boss, or a filler material of braze, solder or epoxy. Dutton discloses a groove 806 defined in the first side of base member 801 surrounding the opening 810, 812 creating a raised boss 807, 809 adjacent the opening in order to form a bond between tube 802 and base member 801 by applying a brazing material (column 6, lines 4-31). Further, it is well known by those of ordinary skill in the art the solder, epoxy and braze material are interchangeable used bonding materials. (See MPEP § 2144.03). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to include in Cook a raised boss adjacent the opening such that braze, solder or epoxy can be used to bond the tube to the base member.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey D. Mack whose telephone number is (571) 272-2181. The examiner can normally be reached on M-F, 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Art Unit: 2855

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Corey D. Mack, Esq.
Patent Examiner
Art Unit 2855

September 29, 2004



EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800